



NASA's Space Launch System: An Enabling Capability for Discovery

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Space Launch System (SLS) Program

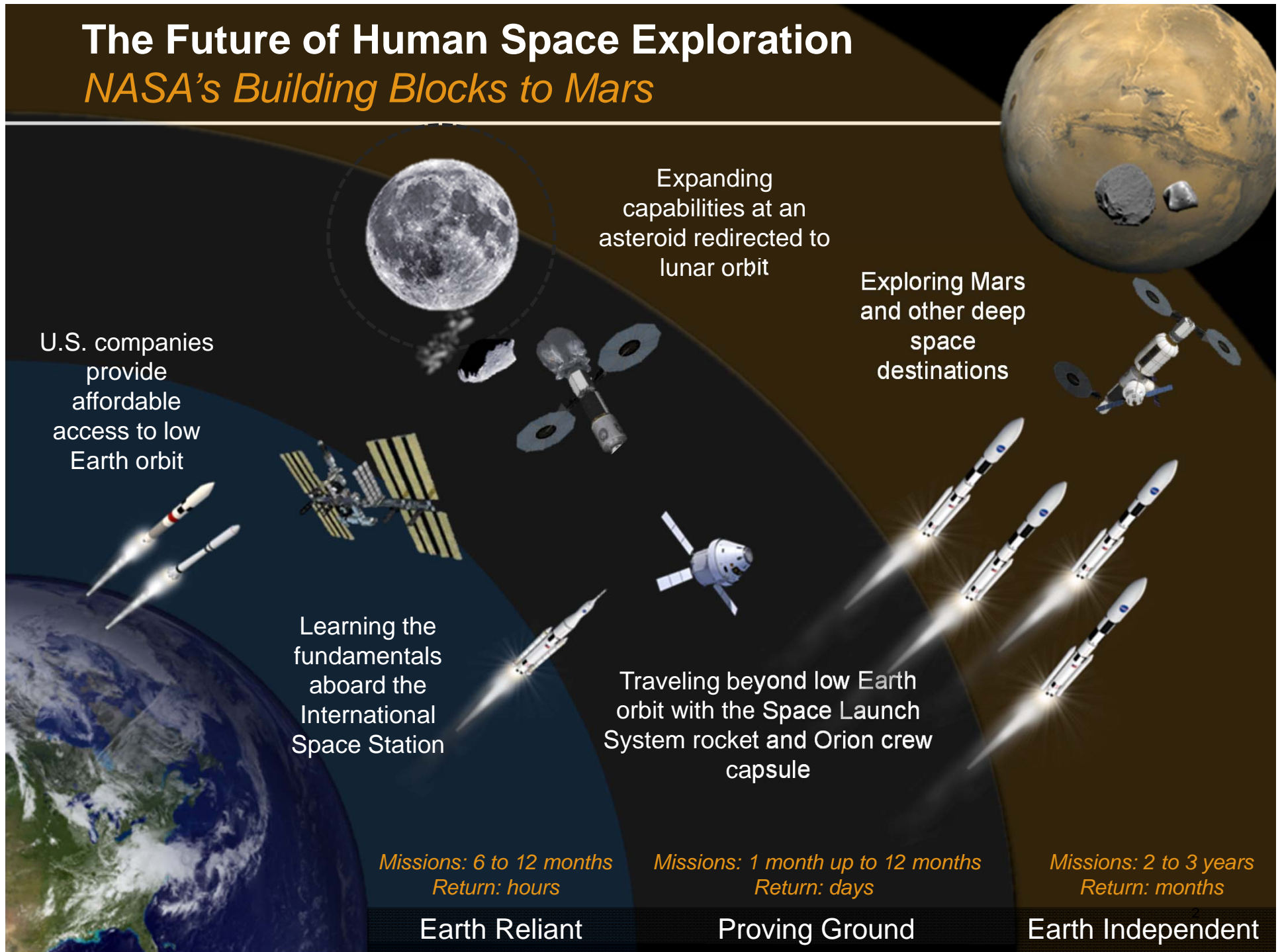
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Space Launch System



The Future of Human Space Exploration

NASA's Building Blocks to Mars



Global Exploration Roadmap 2.0



2013

2020

2030

International Space Station

General Research and Exploration
Preparatory Activities

Note: ISS partner agencies have agreed to use the ISS until at least 2020.

Commercial or Government Low-Earth Orbit Platforms and Missions

Robotic Missions to Discover and Prepare

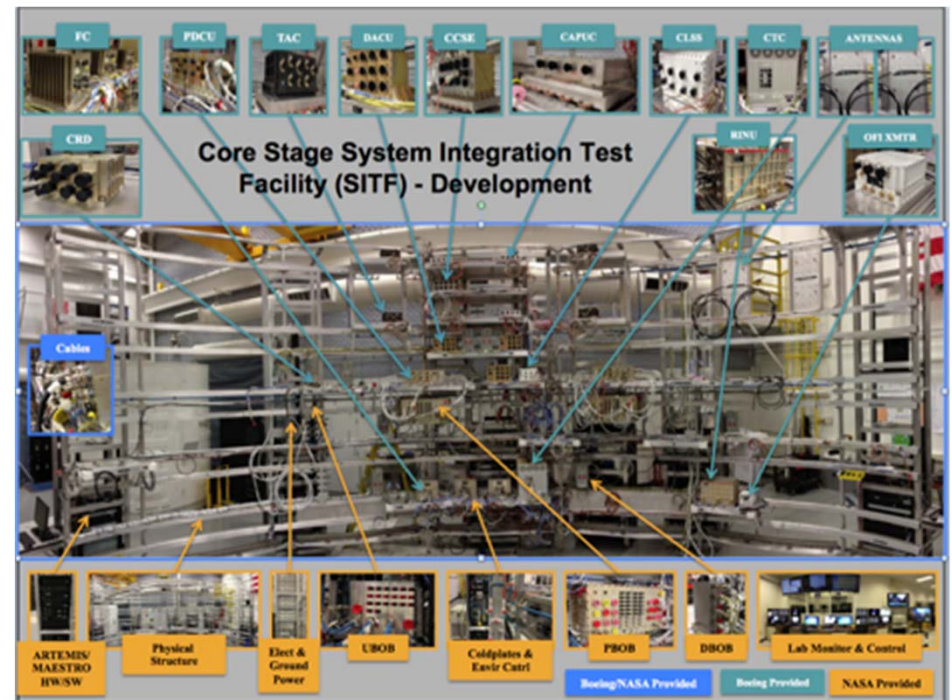


Mars Sample
Return and
Precursor
Opportunities

Human Missions Beyond Low-Earth Orbit



Core Stage Development



Engines and Boosters



SLS Recent Accomplishments



Launch Vehicle Stage Adapter: Contract awarded in Feb. 2014 to Teledyne Brown Engineering.



Avionics: Flight software developed by Boeing tested at Armstrong using F-18 in Nov. 2013; avionics "first light" marked in Jan. 2014 at Marshall.

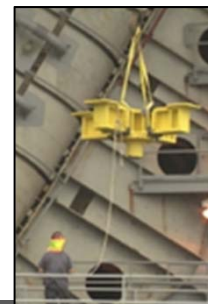
Multi-Purpose Crew Vehicle-to-Stage Adapter: First flight hardware delivered to ULA for Exploration Flight Test-1 in Fall 2014.



Core Stage: Initial confidence barrels and domes completed by Boeing; tooling installation to be completed at MAF in July 2014.



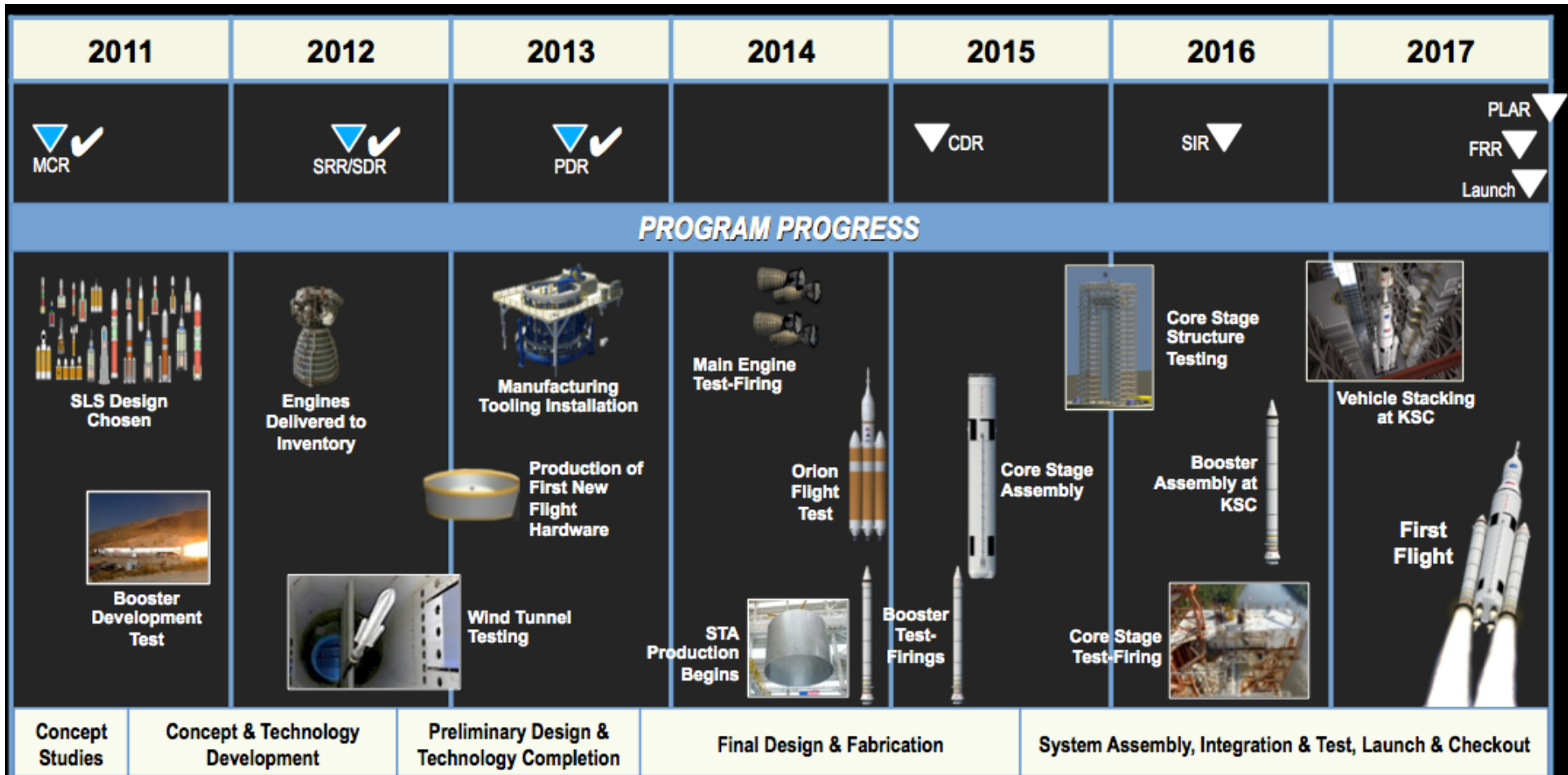
Boosters: Thrust Vector Control test conducted by ATK in Oct. 2013; preparations under way for first qualification motor test.



Engines: Thrust frame adapter fitted to Stennis A-1 stand; Aerojet-Rocketdyne RS-25 testing begins July 2014.



SLS Development Timeline



MCR: Mission Concept Review	CDR: Critical Design Review
SRR: System Requirements Review	SIR: System Integration Review
SDR: System Definition Review	FRR: Flight Readiness Review
PDR: Preliminary Design Review	PLAR: Post-Launch Asses. Review